

AMENDMENTS

Claims 1-9 are pending.

Claims 8-9 have been added.

Support for the amendments is found in the claims and specification (e.g., pages 8-9, the bridging paragraphs; Table 1 on page 16; and original claim 3), as originally filed. No new matter is believed to have been added.

REMARKS AND REQUEST FOR RECONSIDERATION

The claimed composition of claim 1 comprises an anionic surfactant (A) and trimethylglycine (B), wherein a weight ratio of A/B is from 1/3.5 to 4/1 and the pH is from 2 to 6.5. The claimed composition of claims 8 and 9 is further limited to a pH 5-6.4. The amounts of an anionic surfactant (A) and trimethylglycine (B) of claim 9 is further limited to from 5 to 40 wt.% and from 0.1 to 40 wt.%, respectively.

The claimed composition has an excellent stability, moisturizes the skin, gives neither a taut feeling or the dry skin, enables smooth finger-combing and does not give a rough feeling to the hair after shampooing (page 2 of the present specification and the Examples).

Claims 1-7 are rejected as being obvious under 35 U.S.C. 103(a) over Jutila, WO 91/18588, and Lyle et al., US 2002/0128168. The rejection is traversed because:

(a) the combination of the references does not describe or suggest selecting a pH from 2 and less than 6.5;

(b) it would have been obvious to modify the Jutila composition to have a pH to 4.9 of Lyle et al. because (i) cocoamidopropyl betaine of Lyle et al. and trimethylglycine of Jutila are different compounds and (ii) a pH of the Jutila et al. composition comprising trimethylglycine and sodium lauryl ether sulphate is 6.5-7.2;

(c) the claimed detergent comprising an anionic surfactant (A) and trimethylglycine (B) at a weight ratio (A)/(B) of 1/3.5 – 2.4/1 and a pH 5-6.4 provides an unexpected

improvement, i.e., non-taut feel, moist feel, and non-dry feel on the skin (see, claims 8 and 9); and

(d) Jutila teaches away from the claimed pH.

*(a) The references do not describe or suggest selecting a pH from 2 and less than 6.5 in combination with a ratio (A)/(B) = 1/3.5 or greater but less than 2.4/1.*

Jutila describes a composition for reducing irritation properties of some compounds (e.g., an anionic surfactant) added to a cosmetic cleansing composition comprising trimethylglycine (pages 1-4, 11-12). Trimethylglycine reduces the skin irritating properties of anionic surfactants, e. g., sodium lauryl ether sulphates and DEA-oleth-3 phosphate (pages 1, 3, and 11-12). A ratio of DEA-oleth-3 phosphate to trimethylglycine is 1:2 (page 12).

Jutila does not describe the pH of the composition on page 12, lines 4-16. The pH of the shampoo composition comprising trimethylglycine and sodium lauryl ether sulphate is 6.5-7.2 (page 11, line 32). However, a weight ratio of sodium lauryl ether sulphate to trimethylglycine in the shampoo composition on page 11, lines 25-32 is 2.4/1 (40% of 30% solution of sodium lauryl ether sulphate to 5% of trimethylglycine), which is outside of the claimed range.

Lyle et al. describe a self-foaming cleansing gel or viscous liquid composition that can be packaged in a flexible bag (abstract). The viscous composition comprises an anionic and an amphoteric or zwitterionic surfactant, a hydrophobic component, and a post foaming agent (see, claim 1). The examples describe compositions comprising, e.g., sodium lauryl ether sulphates and cocoamidopropyl betaine (see, [0082]) that have a pH adjusted by using citric acid to a pH 4.9 (see, [0084]).

Lyle et al. do not describe a composition comprising the claimed components (A) and (B) and the claimed ratio of (A) to (B).

Thus, Jutila and Lyle et al. do not describe all limitations of the claimed detergent composition.

The Examiner is of the opinion that it would have been obvious to modify the Jutila composition of a skin cleanser on page 12 with a pH 4.9 of Lyle et al.

*(b) It would not have been obvious to modify the Jutila composition to a pH to 4.9 of Lyte et al. to achieve the claimed composition because the compositions of Lyte et al. and Jutila (i) comprise compounds having a different “backbone” and (ii) goals of Lyte et al. and Jutila are different.*

(i) The Examiner is of the opinion that because (a) cocoamidopropyl betaine, trimethylglycine, and sulphate anionic compounds have the same “backbone”, and (b) Jutila and Lyle et al. describe cleansing compositions comprising an anionic compound and betaine/trimethylglycine, it would have been obvious to modify the Jutila composition to adjust a pH to 4.9. Applicants respectfully disagree.

First, cocoamidopropyl betaine of Lyle et al. and trimethylglycine of Jutila are different compounds, i.e., cocoamidopropyl betaine is a derivative of cocamide (fatty acids in coconut oils) and glycine betaine (trimethylglycine). The compounds have different properties, e.g., cocoamidopropyl betaine is an emulsifying agent and a thickener to adjust viscosity of a self-foaming cleansing gel of Lyle et al., while trimethylglycine is used as a neutralizer of the skin irradiation caused by, e.g., anionic surfactant.

Second, a pH of the Jutila composition comprising trimethylglycine and sodium lauryl ether sulphate is 6.5-7.2 (page 11, line 32). Thus, Jutila suggests selecting the pH to be higher than the claimed pH.

(ii) Third, the composition of Jutila and Lyte et al. achieve a different goal. Specifically, Jutila describes a composition for reducing irritation properties of some compounds (e.g., an anionic surfactant) added to a cosmetic cleansing composition by using

trimethylglycine (page 1-3). Lyle et al. describe a self-foaming cleansing gel or viscous liquid composition that can be packaged in a flexible bag and delivered effectively with an optimal cleansing conditions, which is relatively easy to manufacture and also having the desired stability and structural characteristics (see, [0009]).(abstract). Thus, the Lyte et al. composition is specifically adjusted to for a foaming gel packed in a flexible container so that the composition can be easily discharged (see, [0001], [0009], [0011]).

Thus, one would not have been motivated to adjust a pH of the Jutila anti-irritation cosmetic composition to 4.9, as described in Lyle et al., because the two compositions have different ingredients and solve different problems.

*(c) Jutila teaches away from the claimed pH.*

In addition, Jutila teaches away from the claimed pH because Jutila describes that a shampoo composition on page 11, lines 25-31, comprising an anionic surfactant and trimethylglycine has a pH 6.5-7.2.

Thus, one would not have modified a pH of the Jutila anti-irritation cosmetic composition to a pH 4.9, because Jutila specifically suggest selecting the higher pH for the intended purpose which the Jutila composition has to achieve, i.e., reduce the skin irritating properties of anionic surfactants.

*(d) The claimed detergent composition comprising an anionic surfactant (A) and trimethylglycine (B) at a weight ratio (A)/(B) of 1/3.5 – 2.4/1 and a pH 5-6.4 provides an advantageous properties (claims 8-9).*

The claimed detergent composition comprising an anionic surfactant (A) and trimethylglycine (B) at a weight ratio (A)/(B) of 1/3.5 – 2.4/1 and a pH 5-6.4 provides an unexpected improvement, i.e., non-taut feel, moist feel, and non-dry feel on the skin (Table 1 of the present specification attached with this response). Table 1 shows that when the pH and/or the claimed ratio (A)/(B) is outside the claimed range of a pH 5-6.4 and 1/3.5 – 2.4/1

(see, the highlighted numbers), respectively, the properties of the detergent composition are inferior (see, the highlighted evaluation results). Specifically, the non-taut feel on the skin, moist feel, non-dry feel, smoothness, softness, and stability are inferior (as indicated by the grades B and C compared to the grade A of the claimed composition).

For example, a composition of Comparative Examples 5 and 6 (Table 1) having the ratio of 5/1 and 3/11 (outside the claimed range) have inferior properties (*see also*, the specification, page 9, second full paragraph). Also, the claimed amount of anionic surfactant (A) provides a rich lather, cool and fresh feeling after washing (page 9, lines 1-2). Compositions of Comparative Examples 1-4 having a pH 6.8; 7.2; 7.8; and 10.9, respectfully, have inferior properties (Table 1).

The claimed detergent composition comprising provides an advantageous properties and, therefore, the claimed composition having a ratio (A)/(B) = 1/3.5 or greater but less than 2.4/1 and a pH 2 or greater but less than 6.5 is not obvious.

Thus, Lyle et al. and Jutila do not make the claimed detergent composition obvious.

Applicants request that the rejection be withdrawn.

A Notice of Allowance for all pending claims is requested.

Respectfully submitted,

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Table 1

	Components (wt. %)	Example products						Comparative products					
		1	2	3	4	5	6	1	2	3	4	5	6
A	Potassium alkyl (C11,13,15)phosphate			10		15	10			10		15	10
	Potassium lauryl phosphate				10						10		
	Sodium polyoxyethylene (2) lauryl ether sulfate	12			5		5	12			5		5
	Sodium cocoyl glutamate ("Amisoft CS-22", product of Ajinomoto Takara Corporation)		5						5				
	Sodium N-lauroyl-N-carboxymethyl-β-alaninate		5						5				
B	Trimethylglycine	5	10	15	4	10	10	5	10	15	4	3	55
	Glycerin mono-2-ethylhexyl ether			5						5			
	Coconut oil fatty acid monoethanolamide ("Amisol CME", product of Kawaken Fine Chemicals)	2						2					
	Lauric acid amidopropylbetaine			5		5	5			5		5	5
	Citric acid	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.
	Potassium hydroxide solution	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.
	Purified water	Bala-nce	Bala-nce	Bala-nce	Bala-nce	Bala-nce	Bala-nce	Bala-nce	Bala-nce	Bala-nce	Bala-nce	Bala-nce	Bala-nce
	pH (5 wt. %)	5.0	5.5	6.0	6.4	5.5	5.5	6.8	7.2	7.8	10.9	5.5	5.5
	(A)/(B) weight ratio	12/5	1/2	2/3	15/4	3/2	3/2	12/5	1/2	2/3	15/4	5/1	3/11
	Non-taut feel on the skin after cleansing	A	A	A	A	A	A	B	B	B	B	B	A
	Moist feel of the skin after cleansing	A	A	A	A	A	A	B	B	A	B	B	A
	Non-dry feel on the skin after cleansing	A	A	A	A	A	A	C	B	B	C	B	A
	Non-sticky feel on the skin after cleansing	A	A	A	A	A	A	A	A	A	A	B	C
	Smoothness of finger-combing after shampoo	A	A	A	A	A	A	A	A	B	B	B	B
	Softness of hair after shampoo	A	A	A	A	A	A	B	B	C	C	B	A
	Stability	A	A	A	A	A	A	B	B	B	B	A	C